

AMENDMENTS TO THE CLAIMS

Please amend the claims as follows.

1. (Currently Amended) An apparatus to unblock a security device issued to an end user, comprising:
 - a client-side transfer agent for securely transferring information among the an unblocking service, the end user, and the security device;
 - an agent-side transfer agent for securely transferring information between an the unblocking service and a security agent;
 - an Unblock Authorization Code (UAC) generated after verification by the security agent and securely transferred from the agent-side transfer agent to the unblocking service, wherein verification comprises verifying the end user is assigned the security device while the end user is in possession of the security device;
 - an Unblock Code (UBC) securely transferred from the unblocking service to the client-side transfer agent, wherein the client-side transfer agent uses the UBC to unblock the security device; and
 - the unblocking service for establishing a secure gateway and storing the UAC and UBC,
wherein the security device is configured to be accessed by a security device reader operatively connected and allowing access to a computer system to provide strong end user authentication.
2. (Original) The apparatus of claim 1, wherein the security agent unblocks the security device from a remote location.
3. (Previously Presented) The apparatus of claim 1, wherein an end user identifier and a password is presented by the end user for the client-side transfer agent to connect to the unblocking service.

4. (Previously Presented) The apparatus of claim 1, wherein the secure gateway is configured to perform an authentication process for every transfer between the client-side transfer agent and the unblocking service.
5. (Original) The apparatus of claim 1, wherein the end user is remote.
6. (Original) The apparatus of claim 1, wherein the security device is a smart card.
7. (Original) The apparatus of claim 1, wherein the apparatus is accessible via a web interface.
8. (Original) The apparatus of claim 3, wherein the end user identifier is an e-mail address.
9. (Canceled)
10. (Previously Presented) The apparatus of claim 1, wherein the client-side transfer agent is configured to check periodically at a configurable frequency for the UAC.
11. (Previously Presented) The apparatus of claim 1, wherein the UAC is accepted upon correlation of an end user identifier and a security device identifier, wherein the unblocking service transfers the UBC to the client-side transfer agent after acceptance of the UAC by the unblocking service.
12. (Original) The apparatus of claim 11, wherein the security device identifier is a serial number.
13. (Original) The apparatus of claim 11, wherein the end user identifier is an e-mail address.
14. (Previously Presented) The apparatus of claim 1, wherein the UBC is provided by the unblocking service to the client-side transfer agent after correlation of an end user identifier, a password, and a security device identifier.
15. (Original) The apparatus of claim 14, wherein the security device identifier is a serial number.
16. (Original) The apparatus of claim 14, wherein the end user identifier is an e-mail address.
17. (Canceled)

18. (Currently Amended) A method of unblocking a security device issued to an end user, comprising:

- establishing a secure gateway by an unblocking service;
- transferring information among the unblocking service, the end user, and the security device in a secure manner;
- transferring information between the unblocking service and the security agent in a secure manner;
- generating an Unblock Authorization Code (UAC) after verification by a security agent, wherein verification comprises verifying the end user is assigned the security device while the end user is in possession of the security device;
- transferring the UAC securely from an agent-side transfer agent to the unblocking service;
- supplying the UAC to the end user by the security agent;
- applying the UAC to a client-side transfer agent by the end user;
- transferring the UAC securely from the client-side transfer agent to the unblocking service;
- verifying the UAC transferred by the client-side transfer agent and the agent-side transfer agent match;
- transferring an Unblock Code (UBC) securely from the unblocking service to the client-side transfer agent; and
- unblocking the security device using the UBC,

wherein the unblocking service stores the UAC and the UBC, and

wherein the security agent and the agent-side transfer agent are unable to access the UBC,

wherein the security device is configured to be accessed by a security device reader operatively connected and allowing access to a computer system to provide strong end user authentication.

19. (Original) The method of claim 18, wherein the security agent unblocks the security device from a remote location.

20. (Original) The method of claim 18, wherein the end user is remote.

21. (Original) The method of claim 18, wherein the security device is a smart card.
22. (Previously Presented) The method of claim 18, further comprising:
 - presenting an end user identifier and a password by the end user for a client-side transfer agent to connect to the unblocking service.
23. (Previously Presented) The method of claim 18, further comprising:
 - performing an authentication process for every transfer between a client-side transfer agent and the unblocking service.
24. (Canceled)
25. (Previously Presented) The method of claim 18, further comprising:
 - checking at a configurable frequency to determine whether the UAC is generated.
26. (Previously Presented) The method of claim 18, further comprising: correlating an end user identifier and security device identifier prior to acceptance of the UAC, wherein the unblocking service transfers the UBC to the client-side transfer agent after acceptance of the UAC by the unblocking service.
27. (Previously Presented) The method of claim 18, further comprising:
 - providing the UBC by the unblocking service to the client-side transfer agent after correlation of an end user identifier, a password, and a security device identifier.
28. (Currently Amended) A method of unblocking a security device issued to an end user, comprising:
 - establishing a secure gateway by an unblocking service;
 - transferring information among the unblocking service, the end user, and the security device in a secure manner;
 - transferring information between the unblocking service and the security agent in a secure manner;

presenting an end user identifier and a password by the end user for a client-side transfer agent to connect to the unblocking service;

performing an authentication process for every transfer between the client-side transfer agent and the unblocking service;

generating an Unblock Authorization Code (UAC) after verification by a security agent, wherein verification comprises verifying the end user is assigned the security device while the end user is in possession of the security device;

transferring the UAC securely from an agent-side transfer agent to the unblocking service;

supplying the UAC to the end user by the security agent;

applying the UAC to the client-side transfer agent by the end user;

transferring the UAC securely from the client-side transfer agent to the unblocking service;

verifying the UAC transferred by the client-side transfer agent and the agent-side transfer agent match through the unblocking service;

transferring an Unblock Code (UBC) securely from the unblocking service to the client-side transfer agent;

unblocking the security device using the UBC;

checking at a configurable frequency to determine whether the UAC is generated;

correlating the end user identifier and a security device identifier prior to acceptance of the UAC; and

providing the UBC by the unblocking service to the client-side transfer agent after correlation of the end user identifier, the password, and the security device identifier, wherein the unblocking service stores the UAC and the UBC, and

wherein the security device is configured to be accessed by a security device reader operatively connected and allowing access to a computer system to provide strong end user authentication.

29. (Currently Amended) A method of unblocking a security device issued to an end user, comprising:

- gathering information from the end user and the security device;
- verifying the information gathered from the end user and the security device;
- contacting the security agent by the end user;
- supplying end user information verbally to the security agent;
- verifying identity of the end user by the security agent using an identity verification mechanism;
- generating an Unblock Authorization Code (UAC) after verification by the security agent, wherein verification comprises verifying the end user is assigned the security device while the end user is in possession of the security device;
- delivering the UAC to an unblocking service;
- storing the UAC against a security device record in a directory service;
- supplying the UAC from the security agent to the end user;
- applying the UAC to a client-side transfer agent by the end user;
- delivering the UAC securely from the client-side transfer agent to the unblocking service;
- verifying the UAC of the client-side transfer agent and an agent-side transfer agent match through the unblocking service;
- requesting an Unblock Code (UBC) from the directory service;
- unblocking the security device by transferring the UBC from the directory service to the client-side transfer agent;
- wherein the unblocking service stores the UAC and the UBC, and
- wherein the security device is configured to be accessed by a security device reader operatively connected and allowing access to a computer system to provide strong end user authentication.

30. (Original) The method of claim 29, wherein the security device identifier is a serial number.

31. (Original) The method of claim 29, wherein the end user identifier is an e-mail address.

32. (Original) The method of claim 29, further comprising:
gathering information from the end user using the client-side transfer agent; and
gathering information from the security device using the client-side transfer agent.
33. (Previously Presented) The method of claim 29, further comprising:
generating a new UBC;
setting the security device to the new UBC; and
delivering the new UBC to the directory service.
34. (Original) The method of claim 29, further comprising:
verifying the security device is not already permanently blocked.
35. (Currently Amended) A method of unblocking a security device issued to an end user, comprising:
gathering information from the end user and the security device;
verifying the information gathered from the end user and the security device;
contacting the security agent by the end user;
supplying end user information to the security agent;
verifying identity of the end user by the security agent using an identity verification mechanism;
generating an Unblock Authorization Code (UAC) after verification by the security agent, wherein verification comprises verifying the end user is assigned the security device while the end user is in possession of the security device;
transferring the UAC to an unblocking service;
storing the UAC against a security device record in a directory service;
transferring the UAC to an unblocking service;
storing the UAC against a security device record in a directory service;
supplying the UAC from the security agent to the end user;
applying the UAC to a client-side transfer agent by the end user;
delivering the UAC securely from the client-side transfer agent to the unblocking service;

verifying the UAC transferred by the client-side transfer agent an agent-side transfer agent match through the unblocking service;
requesting an Unblock Code (UBC) from the directory service;
unblocking the security device by transferring the UBC from the directory service to the client-side transfer agent;
gathering information from the end user using the client-side transfer agent;
gathering information from the security device using the client-side transfer agent;
generating a new UBC;
setting the security device to the new UBC;
delivering the new UBC to the directory service; and
verifying the security device is not already permanently blocked,
wherein the unblocking service stores the UAC and the UBC, and
wherein the security device is configured to be accessed by a security device reader
operatively connected and allowing access to a computer system to provide strong
end user authentication.

36. (Currently Amended) A computer system adapted to unblock a security device issued to an end user, comprising:
- a processor;
 - a memory, and
 - software instructions for enabling the computer under control of the processor, to establish a secure gateway by an unblocking service;
 - transfer information among the unblocking service, the end user, and the security device in a secure manner;
 - transfer information between the unblocking service and a security agent in a secure manner;
 - generating an Unblock Authorization Code (UAC) after verification by a security agent, wherein verification comprises verifying the end user is assigned the security device while the end user is in possession of the security device;
 - transfer the UAC securely from an agent-side transfer agent and a client-side transfer agent to the unblocking service;

transfer an Unblock Code (UBC) securely from the unblocking service to the client-side transfer agent; and
unblock the security device using the UBC;
wherein the unblocking service stores the UAC and the UBC, and
wherein the security device is configured to be accessed by a security device reader
operatively connected to and allowing access to a computer system to provide strong
end user authentication.

37. (Currently Amended) An apparatus for unblocking a security device issued to an end user, comprising:

means for establishing a secure gateway by an unblocking service;
means for transferring information among the unblocking service, the end user, and the security device in a secure manner;
means for transferring information between the unblocking service and a security agent in a secure manner;
means for generating an Unblock Authorization Code (UAC) after verification by a security agent, wherein verification comprises verifying the end user is assigned the security device while the end user is in possession of the security device;
means for transferring the UAC securely from an agent-side transfer agent and a client-side transfer agent to the unblocking service;
means for transferring an Unblock Code (UBC) securely from the unblocking service to the client-side transfer agent; and
means for unblocking the security device using the UBC;
wherein the unblocking service stores the UAC and the UBC, and
wherein the security device is configured to be accessed by a security device reader
operatively connected and allowing access to a computer system to provide strong
end user authentication.